What is claimed is:

1.   An application authentication system comprising:

a terminal device having no secure information area, said terminal device including an application and application running means; and

5   a secure device connected fixedly or detachably to said terminal device, said secure device for authenticating the application requesting access to the secure device;

wherein said secure device authenticates the application running means, and then authenticates the

10   application based on a result of that the application running means execute a process on the application.

2.   The application authentication system according to Claim 1,

wherein the application running means calculates digest data of the application to which an electronic

5   signature is attached, and presents the digest data and the electronic signature to the secure device, and

wherein the secure device verifies the electronic signature by using the presented digest data, and then authenticates the application if a verified result is

10   normal.

3.   The application authentication system according to Claim 1,

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wherein the application running means calculates digest data of the application and presents the digest data to the secure device, and

wherein the secure device collates the presented digest data with digest data held in a database of the secure device, and then authenticates the application if a collated result is normal.

4. The application authentication system according to Claim 3,

wherein the application running means calculates digest data of the application and sends out a process request command to the secure device, then

wherein the secure device sends out first information to the application running means, then

wherein the application running means encrypts the first information by using the digest data and sends out encrypted information to the secure device, and then

wherein the secure device decrypts the encrypted information by using the digest data stored in a database of said secure device and then collates decrypted information with the first information.

5. The application authentication system according to Claim 1,

wherein the application running means verifies an

electronic signature of the application to which the

electronic signature is attached to authenticate the

application, and

wherein the secure device accepts an authenticated

result of the application running means to authenticate the

application.

6. The application authentication system according to

Claim 2,

wherein the secure device 1) shares a second

information with the application running means if the

secure device authenticates the application running means,

and 2) accepts a process request if the second information

are added to the process request issued from the

application that the secure device authenticates.

7. A secure device connected fixedly or detachably to

a terminal device, said secure device comprising:

a card manager for executing a process of

authenticating the terminal device; and

a card application for applying an authenticating

process to an access request application stored in the

terminal device;

wherein the card application authenticates the

application based on a process that is applied to the

application by the terminal device, then confirms that the

process of authenticating the terminal by the card manager is completed, and then accepts an access request of the authenticated application.

8.   A terminal device including:

an application running means; and

an application,

wherein the application running means calculates digest data of the application to request an access to a secure device after the fitted secure device authenticates the application running means, then authenticates the application by using the digest data, and then issues an access request to the secure device.

9.   The terminal device according to Claim 8,

wherein the application running means verifies an electronic signature attached to the application by using the digest data, and authenticates the application.

10.   The terminal device according to Claim 8,

wherein the application running means sends out the digest data to the secure device, then acquires a collated result of the digest data from the secure device, and then authenticates the application.

11.   An application authentication system comprising:

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a terminal device having no secure information area; and

a secure device connected fixedly or detachably to said terminal device;

wherein said terminal device includes 1) applications, and 2) application running means for running and authenticating the applications requesting access to the secure device, and

wherein said secure device authenticates an application stored in the terminal device in order to permit access to said secure device, if the application is authenticated by application running means authenticated by said secure device.